My name is Michael W. Russo, CEDS. I am above the age of 18. Below is a summary of my professional experience. Following is my findings regarding Discovery 11.

#### I. Professional Summary of Michael W. Russo, CEDS

I am a Certified e-Discovery Specialist (CEDS) consultant with over fifteen (15) years of experience in e-Discovery, Information Technology, computer forensics, software development and litigation support. My career spans significant roles at several offices of the United States Attorney's Office, litigation boutique law firms, and national and international law firms. My criminal and forensic experience includes investigations into – and defense of – financial crimes, internet crimes, white collar crimes, terrorism, and other major crimes. My civil experience includes prosecution and defense of cases involving insurance, health care, class actions and mass claims, securities, and general complex commercial litigation.

My experience includes the entire gamut of eDiscovery and litigation support: from hardware management to network infrastructure and software development; from advising attorneys and firm clients on discovery responses to production compliance in billion-dollar cases; from litigation holds to eDiscovery audits. I have been in the trenches training staff and attorneys; advising attorneys and firm clients; building, training, and managing litigation support teams; and writing code. I have managed cases on every major eDiscovery platform and am proficient in a variety of software languages. In particular, I specialize in auditing existing eDiscovery environments and ESI — including correcting system and workflow inefficiencies, ensuring compliance with best practices and case-specific eDiscovery agreements, preventing inadvertent production of sensitive materials, and creating custom solutions to automate and accelerate manual efforts.

As the founder of Lawgical Insight, I have established a cutting-edge consulting firm specializing in eDiscovery, computer forensics, data analysis, and case management - further solidifying my standing as a leader in eDiscovery.

#### II. Scope of Engagement

I was engaged by the law firm of Stumphauzer Kolaya Nadler & Sloman, PLLC to review certain productions of electronically stored information ("ESI") from the United States Department of Justice ("the Government") related to U.S.A. v. Vazquez, et al, Case 3:22-cr-00342-SCC. This report specifically analyzes the most recent production – referred to by the parties as "Discovery 11." This report attempts to outline certain deficiencies in Discovery 11, including deviations from eDiscovery standards and best practices. This report will also include a list of prior productions that suffer from some of the same deficiencies and deviations as Discovery 11.

#### III. Summary of Discovery 11

Discovery 11 was produced on a BitLocker encrypted hard drive. This is consistent with eDiscovery standards and best practices. Upon decryption, the drive contained two (2) folders:

```
2400003485_231213_Govt_Production_011 Part 1
2400004102_231213_Govt_Production_011 Part 2
```

Each folder ("Part 1" and "Part 2") included the standard structure of files and folders, which are consistent with a production of ESI in "database load file" format. This format is consistent with eDiscovery standards and best practices.

In relevant part, the summary metrics from the load files are:

- i. **Part 1** 692,479 Documents 925,267 Pages\* 218GB
- ii. **Part 2** 426,356 Documents 489,327 Pages\* 169GB

**Note:** page counts for load files are not an accurate metric for size. This is because productions routinely include so-called "slip-sheets," where a single descriptive page can hold the place of an unusually large or 'native preferred' document. The actual page count is often higher. This is the case with Discovery 11, as detailed below.

Below is a File Type Report from Discovery 11, showing the various categories and types of files produced, their attendant total size, and their attendant total file count. Importantly, I highlight that Discovery 11 is large. As such, it would be prohibitively expensive and time-consuming to attempt to manually correct the deficiencies and deviations highlighted in my findings.

Name	Size <u></u>	Files <b></b>	Type
Image Files	265.4 GB	1738559	Files containing pictures, images or mouse cursors
Video Files	98.9 GB	17620	Files containing videos or animations
Office Files and Documents	9.2 GB	10969	Documents and files of office programs and PDFs
Miscellaneous Files	5.6 GB	24140	Unknown file types
Audio Files	4.7 GB	12231	Files containing music, sounds or playlists
Text Files	1.8 GB	1774700	Plain text files, log files
Mail Files	1.4 GB	11425	Email messages and files of email clients
Internet Files	984.1 MB	19071	Files related to the WWW, like HTML files
MacOS Files	3.4 MB	5	Files which are typically used on MacOS system
Configuration Files	258 Bytes	2	Files containing configuration settings

**Note:** Image Files and Text Files count **includes** the TIFF productions images and the TEXT productions files. Counts in this report account for these, and they are **not** included in the summary metrics provided in this report.

#### IV. Issues with Discovery 11 – Provided Metadata

Metadata is an important part of every ESI production. Metadata, often defined as data about data, is the system-generated (rather than user-generated) information that serves several litigation-related functions. I will highlight three such functions.

First, metadata serves to authenticate data. For example, if a letter is dated in its body as January 1, 2024, but the metadata field for "Date Created" is September 1, 2023, we know that the letter was actually drafted on September 1, 2023. Second, metadata can reveal important information that the content of ESI may not reveal. For example, if a presentation reveals evidence of a conspiracy, it may not be signed by the conspirators. But the "Created By" and "Modified By" fields may reveal who authored and who engaged in editing the conspiratorial presentation. Third, metadata aids in legal review of a production. For example, it is often necessary to perform searches limited to certain custodians or to review communications in date order (so the reviewers see a conversation in the order it happened). If the attendant metadata for Custodian and Date Sent are not included, or are improperly formatted, these eDiscovery standards and best practices for performing a review become impossible to implement. Another important example is in de-duping ESI to ensure documents are only reviewed once — which is problematic if the metadata is incomplete or improperly formatted.

In relevant part, the document-specific metadata fields from the load files are:

Field Name	Part 1	Part 2
PRODUCTION		
BEGDOC	692479	426356
PRODUCTION		
ENDDOC	692479	426356
PRODUCTION		
BEGATT	692479	426356
PRODUCTION		
ENDATT	692479	426356
Custodian	0	0
EMAIL FROM	361993	238923
EMAIL TO	345243	222866
FILENAME	612863	0
FILE PATH	692479	426356
MD5 Hash	649976	403702
PAGE COUNT	692479	426356
SHA1 Hash	649976	403702
Text Precedence	692479	426356
FILE_PATH	692479	382799

The number under "Part 1" and "Part 2" refers to the total number of documents for which the attendant metadata field exists. As a key to the above graphic:

- i. The fields highlighted in green are typically provided and my initial analysis reveals nothing unusual.
- ii. The fields in red are typically provided; however, my initial analysis shows irregularities– detailed below.
- iii. The fields in yellow are typically provided; however, they are not important or relevant for this type of production.
- iv. The field in orange is typically provided; however, as previously noted, page count may not be accurate for the actual ESI represented by the load file production.
- v. "FILE PATH" is typically provided, and appears to be the original path of the sourced/imaged data.

I note also that "PAGE COUNT," here, is not an accurate metric as it is based on the "Tiff" image count. For example, **DOJ-0001189367** shows in the metadata field "PAGE COUNT" as "1" because it is a placeholder for a PDF that contains 81,861 pages of communications from a sourced device "Universal\_Android\_Access.zip" which appears to be identified as the "Blakeman" device.

#### V. Issues with Discovery 11 – UFDR file type

Discovery 11 includes at least 684,595 documents with a "FILE PATH" showing ".ufdr" as the attendant file type, as well as various different "extraction reports" from Cellebrite and Axiom. This suggests that most of this production can be produced in a much more useable and efficient format – UFDR native format. In litigation involving UFDR data from a mobile device, production of the UFDR native format file is the standard and best practice. Production in this format ensures the data from the mobile device is self-authenticating, complete, and properly formatted and structured. Importantly, this method of producing the UFDR report allows for the redaction or exclusion of items tagged by the Government as sensitive, privileged, HIPAA, PII, etc.

For example, see Exhibit 1 for how a typical UFDR report (Cellebrite extracted report) in native UFDR format is ingested for review. This production method includes a graphical interface the preserves many of the relationships of the native applications ("apps"). That is, the data appears as more similarly to how you would find it in a mobile device, with the added functionality to sort and filter by useful metadata like Contact Name. Importantly, this is closer to the original mobile phone data, and does not involve any additional processing or cost to produce.

By contrast, see Exhibit 2 for how the produced UFDR report (Cellebrite extracted report) in "standard load file" format is ingested for review. This production method divorces the underlying app data

(like text messages) from the well-organized mobile device environment that is (partially) preserved by the industry standard UFDR report. This production method makes it more difficult to process, filter, and see relationships in data on a mobile device. Importantly, this format is further removed from how the original mobile phone data exists, and requires additional processing to produce.

#### VI. Issues with Discovery 11 – Missing Metadata

The following metadata fields are missing from Discovery 11. Production of these fields is standard and a best practice in modern eDiscovery, especially in criminal matters involving the authenticity and timing of communications. As previously discussed, the below missing fields serve and important function in litigation – and their omission materially limits the useability and evidentiary value of Discovery 11.

- 1. Date/Time Created Date/Time file created
- 2. Date/Time Last Modified Date/Time file last modified
- 3. Date/Time Sent Date/Time e-mail/message sent
- 4. Date/Time Received Date/Time e-mail/message received
- 5. Conversation / Group Chat Name Name of Group Chat
- 6. Communication Type Platform used (SMS, iMessage, WhatsApp, Skype, Signal, etc)
- 7. Participants List of members in chat (can be individual or group)
- 8. Duration Duration of call in seconds.
- 9. BCC Email BCC field
- 10. Email Subject Email subject field
- 11. Custodian Name/Entity/Owner of data collected
- 12. Extension original extension of file.
- 13. File Size size of original file (typically provided in bytes or kilobytes).

The impact of these missing fields is significant, especially in terms of attorney review time. I will offer several examples of difficulties in reviewing Discovery 11 that stem from these missing fields.

Finding an attachment to a message would typically be trivial and take about one

 (1) second in a modern review platform (e.g. Relativity). As produced, it could take
 hours to find the attendant attachment to a message. This process can be
 multiplied across thousands of documents.

- ii. It is virtually impossible to create a logical search or view of specific messages between one or more participants. This is a standard practice in targeted reviews of large productions.
- iii. It is virtually impossible to narrow down documents/messages by date.

Out of the approximately 1,118,835 documents (1,414,594 pages) produced, only 27 (160 pages) were produced in observance of eDiscovery standards and best practices.

#### VII. Issues with Discovery 11 – the other Productions

Below is a list of prior productions for which I performed an initial analysis, and which share the same metadata fields and attendant concerns as Discovery 11:

- 1. Production 004
- 2. Production 005
- 3. Production 008
- 4. Production 009
- 5. Production 010

#### VIII. Issues with Discovery 11 – Obscured Files

My analysis so far has identified thirteen (13) files that were obscured within the production, which contain important communications between relevant parties. See for example These 13 files contain attachments that are otherwise impossible to correlate within the production and contain at least 120,000 pages of relevant messages.

The reason I say these files were obscured is because Discovery 11 does not apply a consistent methodology for generating slip-sheets. Typically, large documents (thousands of pages) may receive a slip-sheet that directs the parties to the native large file. For example, DOJ-0001188765 – which is a 3,297 page PDF – received a slip-sheet but DOJ-0001207505 – which is a 3,465 page PDF did not. With respect to the largest of the obscured documents, over 86,000 pages of relevant communications were bundled together into a single document that received a single slip-sheet without a significantly specific description in the attendant production log. The industry standard and best practice would have been to produce the UFDR file.

#### IX. Conclusion

Discovery 11 was generated in the 'database load file' format, a widely recognized industry standard to produce ESI. Despite its standardization, numerous variations in deliverables still exist. This variation can significantly complicate the ingestion process for both linear and non-linear reviews by a receiving party, especially where there is not an agreed upon or court-ordered ESI protocol.

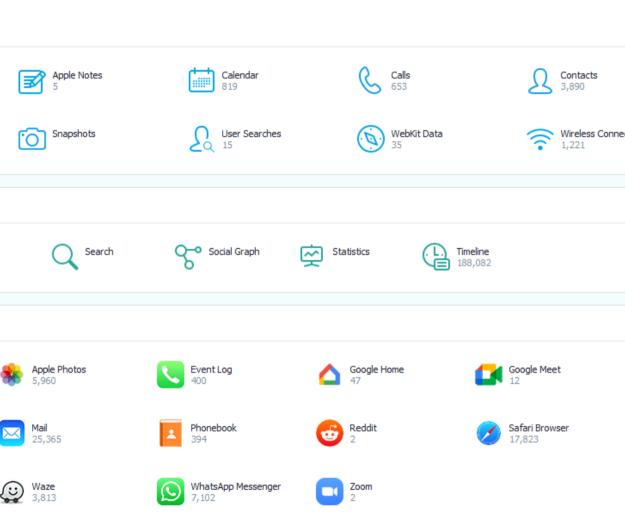
The Discovery 11 production is so poorly organized as to materially prevent review and analysis by reasonable means. Moreover, it was produced in a manner that cannot even be organized by application of modern Technology Assisted Review (TAR) or Artificial Intelligence (AI) technologies. Importantly, Discovery 11 excludes thirteen (13) load file fields containing the metadata necessary for a defensible legal review. Moreover, Discovery 11 excludes native UFDR files, which are a standard and best practice when producing information from mobile devices. In the absence of these, and because of the other deficiencies and deviations outlined in this report, it is not reasonably possible to review or filter the documents by custodian, date, participants (chat members), attachments, or group ID.

Respectfully, Michael W. Russo



## EXHIBIT 1

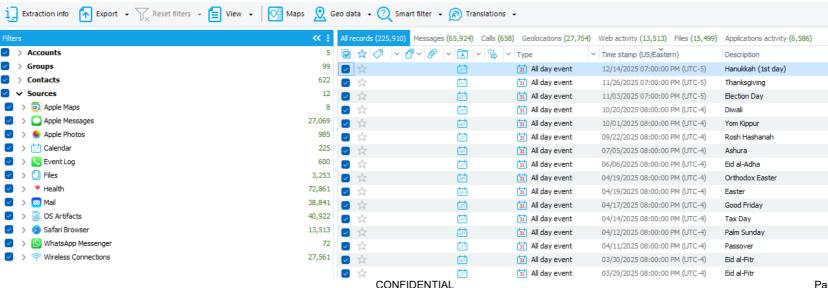
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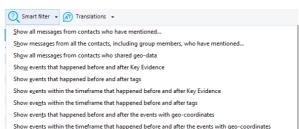
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### ase 3:22-cr-00342-SCC Document 453-2 Filed 01/16/24 Page 11 of 1



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#### Case 3:22-cr-00342-SCC Document 453-2 Filed 01/16/24 Page 12 of 19



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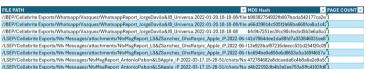
# EXHIBIT 2

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DOJ-0001189367

e 3:22-cr-00342-SCC Document 453-2 Filed 01/16/24 Page 16 o

Document produced in native format

Type: Portable Document Format

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A snippet of a page from the native PDF for bates DOJ-0001189367.

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### EXHIBIT 3

### Case 3:22-cr-00342-SCC Document 453-2 Filed 01/16/24 Page 19 of 19

Bates ▼ FileName	FilePath	▼ Size ▼ La	st Modified V Notes			
DOJ-0001187116	0 /JBEP/Cellebrite Exports/Whatsapp/Vazquez/Universa.2021-10-25.19-13-16_FrancesDiaz&JB/chats/WhatsApp_Native	3.6 MB	12/14/2023 Imporant Messages - Text File Place Holder - 127,000 lines - estimated			
DOJ-0001187148	0 /JBEP/Cellebrite Exports/Whatsapp/Vazquez/Universa.2021-10-25.19-13-16_FrancesDiaz&JB	10.6 MB	12/14/2023 Important Messages			
DOJ-0001187215	0 /JBEP/Cellebrite Exports/Whatsapp/Vazquez/Universa.2021-10-25.20-10-31_DaneWaters&JB/chats/WhatsApp_Native	1.6 MB	12/14/2023 Imporant Messages - Text File Place Holder			
DOJ-0001187216	0 /JBEP/Cellebrite Exports/Whatsapp/Vazquez/Universa.2021-10-25.20-10-31_DaneWaters&JB/chats/WhatsApp_Native	1.7 MB	12/14/2023 Imporant Messages - Text File Place Holder			
DOJ-0001187286	0 /JBEP/Cellebrite Exports/Whatsapp/Vazquez/Universa.2021-10-25.20-10-31_DaneWaters&JB	20.4 MB	12/14/2023 Important Messages			
DOJ-0001188693	0 /JBEP/Cellebrite Exports/Whatsapp/Vazquez/Universa.2021-10-27.17-48-45_WW Work team/chats/WhatsApp_Native	2.2 MB	12/14/2023 Imporant Messages - Text File Place Holder			
DOJ-0001188765	0 /JBEP/Cellebrite Exports/Whatsapp/Vazquez/Universa.2021-10-27.17-48-45_WV Work team	5.8 MB	12/14/2023 Important Messages			
DOJ-0001189100	0 /JBEP/Cellebrite Exports/Whatsapp/Vazquez/WhatsappReport_JorgeDavila&JB_Universa.2022-01-20.18-18-08/chats/WhatsApp_Native	3.3 MB	12/14/2023 Imporant Messages - Text File Place Holder			
	0 /JBEP/Cellebrite Exports/Whatsapp/Vazquez/WhatsappReport_JorgeDavila&JB_Universa.2022-01-20.18-18-08/chats/WhatsApp_Native	11.6 MB	12/14/2023 Imporant Messages - Text File Place Holder			
DOJ-0001189105	0 /JBEP/Cellebrite Exports/Whatsapp/Vazquez/WhatsappReport_JorgeDavila&JB_Universa.2022-01-20.18-18-08/chats/WhatsApp_Native	3.6 MB	12/14/2023 Imporant Messages - Text File Place Holder			
DOJ-0001189106	0 /JBEP/Cellebrite Exports/Whatsapp/Vazquez/WhatsappReport_JorgeDavila&JB_Universa.2022-01-20.18-18-08/chats/WhatsApp_Native	1.1 MB	12/14/2023 Imporant Messages - Text File Place Holder			
DOJ-0001189110	0 /JBEP/Cellebrite Exports/Whatsapp/Vazquez/WhatsappReport_JorgeDavila&JB_Universa.2022-01-20.18-18-08/chats/WhatsApp_Native	1.7 MB	12/14/2023 Imporant Messages - Text File Place Holder			
DOJ-0001189116	0 /JBEP/Cellebrite Exports/Whatsapp/Vazquez/WhatsappReport_JorgeDavila&JB_Universa.2022-01-20.18-18-08/chats/WhatsApp_Native	2.2 MB	12/14/2023 Imporant Messages - Text File Place Holder			
DOJ-0001189367	0 /JBEP/Cellebrite Exports/Whatsapp/Vazquez/WhatsappReport_JorgeDavila&JB_Universa.2022-01-20.18-18-08	149.9 MB	12/14/2023 Important Messages			
DOJ-0001191073	/LSEP/Cellebrite Exports/Ntv Messages/NtvMsgReport_LS&JNegron_LatinoCoalitionconvo_Apple_iP.2022-06-07.14-14-59	1.2 MB	12/14/2023 Important Messages			
DOJ-0001192312	U/LSEP/Cellebrite Exports/Ntv Messages/NtvMsgReport_LS&MBlasco_Apple_iP.2022-06-06.16-14-13	1.3 MB	12/14/2023 Important Messages			
DOJ-0001195059	0 /LSEP/Cellebrite Exports/Whatsapp/WhatsappReport_LS&ECintron_Apple_iP.2022-06-07.16-43-25	1.0 MB	12/14/2023 Important Messages			
DOJ-0001199301	0 /LSEP/Cellebrite Exports/Whatsapp/WhatsappReport_LS&MariceliMaymi_Apple_iP.2022-06-07.16-14-19	1.9 MB	12/14/2023 Important Messages			
DOJ-0001201775	0 /LSEP/Cellebrite Exports/Whatsapp/WhatsAppReport_LS&MarisolBlasco_Apple_iP.2022-03-11.16-42-30/chats/WhatsApp_Native	1.1 MB	12/14/2023 Imporant Messages - Text File Place Holder			
DOJ-0001201828	0 /LSEP/Cellebrite Exports/Whatsapp/WhatsAppReport_LS&MarisolBlasco_Apple_iP.2022-03-11.16-42-30	3.2 MB	12/14/2023 Important Messages			
DOJ-0001204270	0 /LSEP/Cellebrite Exports/Whatsapp/WhatsAppReport_LS&WandaVazquez_Apple_iP.2022-03-11.16-39-28	1.1 MB	12/14/2023 Important Messages			
DOJ-0001207408	0 /LSEP/Cellebrite Exports/Whatsapp/WhatsappReport_LS.JB.JD.EC.GR.MBetal_Apple_iP.2022-06-07.15-27-58/chats/WhatsApp_Native	2.0 MB	12/14/2023 Imporant Messages - Text File Place Holder			
DOJ-0001207505	0 /LSEP/Cellebrite Exports/Whatsapp/WhatsappReport_LS.JB.JD.EC.GR.MBetal_Apple_iP.2022-06-07.15-27-58	6.3 MB	12/14/2023 Despite being a 3,465 PDF Report similar to the others; this document was NOT placeholdered.			
DOJ-0001223692	0 /WVEP/Cellebrite Exports/Whatsapp/WhatsappReport_GaryRodriguez&WV_AppleiO.2022-04-06.12-12-31	1.0 MB	12/14/2023 Important Messages			
DOJ-0001225994	0 /WVEP/Cellebrite Exports/Whatsapp/WhatsappReport_MBlasco&WV_AppleiO.2022-04-06.11-51-03	1.5 MB	12/14/2023 Important Messages			
DOJ-0001234678	0 /WVEP/Cellebrite Exports/Whatsapp/WhatsAppReport_WV&OS.M.JD.GR.MB_AppleiO.2022-02-03.16-35-59	1.9 MB	12/14/2023 Important Messages			
DOJ-0001242222 2014-12-23 21:11:39 UTC - 2022-01-13 14:00:56 UTC: [7 participants]	/REQ283291_1B18 (Marisol Blasco's phone)/Apple iPhone (Physical)/REQ283291_1B18_Apple iPhone_Report.ufdr/Chat	1.3 MB	12/14/2023 Imporant Messages -Text File Natives - TIFFs provided without placeholders (No metadata)			
DOJ-0001294225 2019-08-19 08:43:59 UTC - 2020-01-01 23:09:28 UTC: [4 participants]	/REQ283291_1B18 (Marisol Blasco's phone)/Apple iPhone (Physical)/REQ283291_1B18_Apple iPhone_Report.ufdr/Chat	1.0 MB	12/14/2023 Imporant Messages -Text File Natives - TIFFs provided without placeholders (No metadata)			
DOJ-0001310986 2019-08-30 01:00:26 UTC - 2022-01-12 19:53:01 UTC: [+17875015021, +17874855573]	/REQ283291_1B18 (Marisol Blasco's phone)/Apple iPhone (Physical)/REQ283291_1B18_Apple iPhone_Report.ufdr/Chat	1.2 MB	12/14/2023 Imporant Messages -Text File Natives - TIFFs provided without placeholders (No metadata)			
DOJ-0001377618 2019-11-07 20:23:39 UTC - 2022-01-11 22:20:32 UTC: [2 participants]	/REQ283291_1B18 (Marisol Blasco's phone)/Apple iPhone (Physical)/REQ283291_1B18_Apple iPhone_Report.ufdr/Chat	1.6 MB	12/14/2023 Imporant Messages -Text File Natives - TIFFs provided without placeholders (No metadata)			
DOJ-0001553253 2019-12-28 18:43:14 UTC - 2020-04-06 19:19:50 UTC: [7 participants]	/REQ283291_1B18 (Marisol Blasco's phone)/Apple iPhone (Physical)/REQ283291_1B18_Apple iPhone_Report.ufdr/Chat	1.2 MB	12/14/2023 Imporant Messages -Text File Natives - TIFFs provided without placeholders (No metadata)			
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